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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,810	12/13/2003	Alan D. Eastman	07575.006	2782

7590 11/04/2004

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EXAMINER

TOOMER, CEPHIA D

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

687

Office Action Summary	Application No.	Applicant(s)	
	10/734,810	EASTMAN ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-17, 19-22, 24, 25, 28, 29, 31-41, 43, 44, 47-60, 62, 63, 65, 66, 69, 70 and 72-76 is/are rejected.
- 7) ☒ Claim(s) 18, 23, 26, 27, 30, 42, 45, 46, 64, 67, 68 and 71 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-4, 8-10, 19, 20, 34-36, 44, 48-50, 54-56, 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2-3, 8-10, 19-21, 34-35, 44, 48-49, 54-56 and 60 are rejected because the language "selected from the group consisting essentially of" is improper Markush language.

In claims 3,35 and 49, there should be a comma between methanol and ethanol.

Claims 4, 36 and 50 are rejected because there is no antecedent support in the base claims for "R".

Claims 20 and 21 are rejected because there is no antecedent support in claim 1 for 0.1% of the aliphatic ether.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-14, 16, 17, 28, 47-50, 52-58, 69 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 2,342,824.

CA teaches a liquid fuel composition comprising 10-50 vol. % of at least two kinds of C₂-C₁₁ alcohols, 40-60 vol. % of at least one kind of saturated or unsaturated hydrocarbons (naphtha) and 10-30 vol. % of at least one kind of ethers having two chain hydrocarbon groups whose number of carbon atoms is 6 or less (see abstract; page 3, first paragraph, last paragraph and page 4, last paragraph). The ethers include methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME) and dibutyl ether (see page 4, fourth paragraph). CA teaches that conventional additives may be included in the fuel composition (see page 10, lines 4-9).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 19-22, 24, 25, 29, 31-41, 43-44, 51, 59-63, 65, 66, 70, 72-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over CA 2,342,824.

CA has been discussed above. CA teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, CA differs from the claims in that it does not specifically teach a mixture of ethanol and isobutanol or isopropanol (claims 5, 20-22, 24, 25, 29, 31-32, 51, 61-63, 65-66, 70 and 72-73). However, it would have been obvious to one of ordinary skill in the art to have combined these alcohols because CA specifically teaches that at least two alcohols having 2-11 carbons may be combined to form the alcoholic component of the fuel composition.

In the second aspect, CA differs from the claims in that it does not specifically teach the claimed additives (claims 19, 31, 32, 44 and 60). However, it would have been obvious to one of ordinary skill in the art to have included the claimed additives because CA teaches that conventional additives may be included in the fuel composition.

In the third aspect, CA differs from the claims in that it does not specifically teach the proportions of 9.7% and 8.9% of MTBE (claims 31, 32, 72 and 73). However, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985).

In the fourth aspect, CA differs from the claims in that it does not specifically teach the range of 55-70 wt. % alcohol (claim 33 and its dependents). However, CA does teach that the composition may contain 50% of the alcohol and a prima facie case

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of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985).

In the fifth aspect, CA differs from the claims in that it does not specifically teach the RVPP of claims 18, 43 and 59. However, it would have been obvious to one of ordinary skill in the art to have prepared a fuel composition possessing the claimed RVP because gasoline type fuels that are formulated for internal combustion engines have a vapor pressure ranging from 6.5 to 15 psi.

In the sixth aspect, CA fails to teach that the fuel composition is prepared by turbulent mixing (claims 74 and 75). However, it would have been obvious to one of ordinary skill in the art to have used turbulent mixing to prepare the fuel because it would allow for complete mixing of the components and produce a homogeneous product.

8. Claims 18, 23, 26, 27, 30, 42, 45, 46, 64, 67, 68 and 71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to teach or suggest a fuel composition comprising the claimed amounts of alcohol, naphtha and 5 or 6.5% of MTBE or a fuel composition comprising the claimed components and 60 % alcohol.

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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art teaches fuel compositions comprising ether, alcohol and naphtha.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

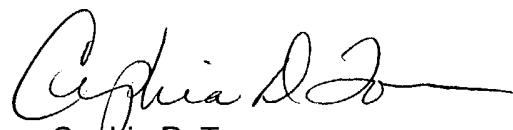
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Cephia D. Toomer', with a long horizontal flourish extending to the right.

Cephia D. Toomer
Primary Examiner
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